PATENT

DOCKET NO.: MSFT-2751/304827.1

Application No.: 10/721,663
Office Action Dated: May 17, 2006

REMARKS

Status of the Claims

- Claims 1-20 are pending in the Application after entry of this amendment.
- Claims 1-20 are rejected by the Examiner.
- Claims 1, 9, and 16 are amended by Applicant.

Claim Rejections Pursuant to 35 U.S.C. §103 (a)

Claims 1-20 stand rejected pursuant to 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Publication No. US 2004/0025117 to Ingersoll in view of U.S. Patent Publication No. US 2002/0161801 to Hind. Applicant respectfully traverses the rejection.

Ingersoll teaches systems and methods for registry driven transformation of a document exchanged between businesses or applications. More particularly, Ingersoll relates to systems and protocols for using one or more commonly accessible registries to transform electronic commerce documents among dissimilar interfaces, preferably XML documents. (see paragraph 008).

Ingersoll FIG. 2 teaches:

FIG. 2 depicts supplier processing of incoming purchase orders destined for four disparate systems. Incoming purchase orders originate from three sources 201, an EDI buyer, an online store customer and an OAG-compliant buyer. The native formats utilized by the three sources 201 may include EDI, XML and OAG. Four target systems 206 include an SAP Financial system, an SAP MRP system, a Biz IQ system and a Grainger shipping system. The native formats accepted by these target systems 206 include IDOC, BAPI, OAG and a custom API. In this system, a web services engine 211 performs semantic transformations using a common syntactic base. For instance, EDI and OAG documents are converted to XML, as a common syntactic base. Transformations from XML to XML handle semantic differences between the source and target document. XML documents may be reconverted to native formats such as EDI, OAG, IDOC, or BAPI. The syntactical transformations to and from XML may be handled as part of the web services engine 211 or by the interfaces or adapters 202, 205 associated with the source 201 and target 206. (paragraph 0021).

The web services engine 211 has access to a variety of transforms 213, including transforms using the common syntactic base. These transforms may be reusable. More than one transform may be invoked to convert a document from source semantics to

PATENT

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target semantics. It may be desirable to utilize a common semantic base for transformations, for instance, transforming incoming documents to a well-understood document schema, such as the xCBL schema for electronic commerce documents 212. By transforming incoming documents to a common semantic base, the need for point-to-point transforms is minimized. The transforms may be chained and may be reusable. (paragraph 0022)

A commonly accessible registry, partially illustrated in FIG. 2, facilitates management of the community using XML schema definition (XSD)-based XML electronic commerce documents or, more generally, a schema for a syntax using character data encoding text characters and markup data identifying sets of storage units according to the logical structure of the documents. Maintaining transformations in at least one repository facilitates reuse, both in design of needed transforms and execution. A commonly accessible repository of transforms also permits distributed execution. The web services engine may use resources of the source, target, or an intermediary service. (paragraph 0023).

Applicant submits that Ingersoll teaches use of a web-based service engine 211 to access a registry 213 having a multiplicity of document transformations useful to convert an input document 201 into an output format 206. The registry of transformations may be distributed or may be in one repository.

Registries use categorization to help determine which transformation to use (See Fig. 3 and paragraph 0026.) A registry may divide an input into namespaces (see Figure 4 and paragraph 0027. Registries also use tables that may be used to identify transforms in a document family (see Figures 6 and 7 and paragraph 0030). Transform types identified included Contivo maps, XST maps, XSLT maps, Java classes translating between XSD and SOX, Java substring substitutions and Java maps (XDK). (see paragraph 0029).

The transformations may be identified by a document entitled an interoperability contract document which details what transformations should be applied to an input document so that the transformation can occur in a XML Transformation Module (XMT). The ICD may include a path of transformation instructions and connectors along a route to carry a document from source to target. The XTM module parses the transformation instructions and obtains a sequence of transforms be executed from the registry client API. The XTM extracts a source document from the envelope 901. It matches the source document attributes with the first transform to be performed and indicates an error if there is a

DOCKET NO.: MSFT-2751/304827.1

Application No.: 10/721,663

Office Action Dated: May 17, 2006

mismatch. It invokes 1014 the document transform API 1003, with the list of transforms to be retrieved and performed. (see paragraph 0035).

Applicant amends independent Claims 1, 9 and 16 to recite that a non-XML flat file as an input to a conversion to an XML file. Applicant finds support for this amendment in paragraph 0024 of the originally filed specification.

Applicant agrees with Examiner's statement on page 3 of the present Office Action dated 5/17/06 that Ingersoll does not explicitly disclose tokens and the annotations claimed. However, Applicant disagrees that Ingersoll teaches an annotated schema comprising a model of a flat file as in paragraph 0030, lines 1-18. Paragraph 0030 at lines 1-18 of Ingersoll describes Figures 6 and 7 as tables used to identify transforms in a document family. Applicant submits that tables identifying transforms, such as Figures 6 and 7 are not an annotated schema comprising a flat file model as recited in Claim 1.

Since Ingersoll fails to teach translating characters into tokens as recited in Claim 1, it therefore cannot teach parsing the tokens and producing an XML file by converting the first native format to an XML format with the use of at least one annotated schema comprising a model of a flat file as recited in Claim 1. Accordingly, Ingersoll fails to teach many elements of Claim 1. Ingersoll fails to teach translating characters of the native format into tokens, parsing the tokens, and producing an XML file by converting the first native format to an XML format with the use of at least one annotated schema comprising a model of a flat file as recited in Claim 1.

Hind cannot cure the deficiency because Hind may not logically be combined with Ingersoll to read on the Claims of the current claims. Specifically, Hind teaches:

A method, system, and computer program product for efficient processing of Extensible Markup Language (XML) documents in Content Based Routing ("CBR") networks. Specifically, the method involves converting existing XML documents to a machine-oriented notation ("mXML") which is significantly more compact than XML, while still conveying the content and semantics of the data and the structure of the document. Documents are converted from XML to mXML upon entering a CBR subnetwork and/or upon receipt by an mXML-capable device. The documents are then processed in mXML format. Devices within the inventive system are provided with an awareness of whether target devices or processes are mXML-capable. Documents being routed to a target which is mXML-capable are passed in mXML format while documents being routed to a target which is not mXML-capable are converted to XML before they are passed. (Abstract).

DOCKET NO.: MSFT-2751/304827.1

Application No.: 10/721,663

Office Action Dated: May 17, 2006

Notably, Hind teaches conversion of an existing XML document to another form of XML called mXML. (see paragraph 0020). Thus, Hind assumes that the input is already in XML form. The claims of the current invention are directed toward converting a non-XML flat input file to an XML formatted output file. The combination of Ingersoll and Hind cannot produce a result that inputs a non-XML file and converts it into an XML file in the manner recited in Claim 1. In addition, the addition of Hind to the invention of Ingersoll changes the principle of operation of Ingersoll.

MPEP §2143.01 Part VI states that a proposed modification cannot change the principle of operation of a reference in a 35 U.S.C. §103 rejection. Specifically, Part VI states: "If the proposed modification or combination of the prior art would change the principle of operation of the prior art being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious."

Since the prior art being modified is Ingersoll which uses a non-XML input, and the modification by Hind changes the principle of operation of Ingersoll by using an XML-type input document, then the combination of Hind with Ingersoll cannot be a viable combination for purposes of establishing a prima facie case of obviousness under 35 U.S.C. §103(a) against Claim 1 which recites a non-XML input flat file. Specifically, the teaching of Hind, with its mandatory XML input, changes the input requirements of Ingersoll, which accepts a non-XML input. Accordingly, the addition of Hind to Ingersoll impermissibly changes the principle of operation of Ingersoll according to MPEP §2143.01 Part VI as applied to amended Claim 1. Applicant notes that amended independent Claims 9 and 16 recite similar elements to that of amended Claim 1.

Accordingly, Applicant respectfully submits that the 35 U.S. C. §103 (a) rejection of independent Claims 1, 9, and 16 and their respective dependent claims does not represent a valid prima facie case of obviousness because of the impermissible use of the combination of Ingersoll and Hinds. In addition, the combination, even if permissible, fails to disclose all of the elements of Claims 1 because neither reference teaches translating characters of the native format into tokens, parsing the tokens, and producing an XML file by converting the native file to an XML format with the use of one annotated schema comprising the model of a flat file as recited in Claim 1.

DOCKET NO.: MSFT-2751/304827.1

Application No.: 10/721,663

Office Action Dated: May 17, 2006

PATENT

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection and reconsideration of Claims 1-20 as the pending claims patentably define over the cited art.

Conclusion

Applicants respectfully submit that the arguments and amendments effectively traverse the rejections of the cited art. Applicants respectfully request reconsideration for all pending claims.

Respectfully Submitted,

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